

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)



Applicant's or agent's file reference 14726/WO/02	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IL 03/01111	International filing date (day/month/year) 29.12.2003	Priority date (day/month/year) 06.01.2003
International Patent Classification (IPC) or both national classification and IPC B27K3/40		
Applicant BROMINE COMPOUNDS LTD. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.
 - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 27.07.2004	Date of completion of this report 07.04.2005
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Jochheim, J Telephone No. +49 89 2399-8632 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IL 03/01111

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-37 as originally filed

Claims, Numbers

1-24 received on 25.01.2005 with letter of 23.01.2005

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 3

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☒ the claims, or said claims Nos. 3 are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the Standard.

☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1,2,4-11
	No: Claims	12-24
Inventive step (IS)	Yes: Claims	1,2,4-11
	No: Claims	12-24
Industrial applicability (IA)	Yes: Claims	1,2,4-24
	No: Claims	

2. Citations and explanations

see separate sheet

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Re Item III

1. Claim 3 is directed to an number of possible derivatives of TBBA for which there is no support in the description as originally filed. Since claim 3 thus lacks support from the description, no opinion can be established on the unsupported subject-matter.

Re Item V

Reasoned statement under **Article 35(2) PCT** with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The following documents (D) are considered to be of relevance for the application; the numbering will be adhered to in the rest of the procedure:

- D1:** US-A-3 284 512 (HENNIS HENRY E ET AL) 8 November 1966 (1966-11-08)
- D2:** DATABASE WPI Section Ch, Week 200013 Derwent Publications Ltd., London, GB; Class A21, AN 2000-142714 XP002276987 & JP 2000 007896 A (NIPPON KAYAKU KK), 11 January 2000 (2000-01-11)
- D3:** WO-A-03/009981 (BROMINE COMPOUNDS LTD ;GOHARY JOSSEF (IL)) 6 February 2003 (2003-02-06)
- D4:** PATENT ABSTRACTS OF JAPAN vol. 1997, no. 06, 30 June 1997 (1997-06-30) & JP 09 048899 A (JAPAN SYNTHETIC RUBBER CO LTD), 18 February 1997 (1997-02-18)
- D5:** DATABASE WPI Section Ch, Week 199422 Derwent Publications Ltd., London, GB; Class E14, AN 1994-176961 XP002276968 & CN 1 075 673 A (CHANG S), 1 September 1993 (1993-09-01)

(Not necessarily all documents are referred to in this communication, but may become of higher importance during the procedure. This does not exclude the possibility that also additional documents may be added to the list during the procedure.)

The following abbreviations in parentheses apply to this document: page (p), column (co), line (l), example (ex), claim (cl).

1. Article 33(2) PCT (Novelty)

- 1.1 Claim 1 meets the requirement of **Article 33(2) PCT**, because the use of Tetrabromobisphenol A as an antifungal agent for wood preservation is not disclosed in any of **D1-D5**.
- 1.2 Claims 2 and 4-11 are preferred manners of the usage according to claim 1 and therefore also meet the requirement of **Article 33(2) PCT**.
- 1.3 Since the intended use of a composition is not regarded as a technical feature in composition claims and does not limit the scope of such claims. Claims 12-21 are therefore regarded as compositions per se. Claim 12 amounts to claiming a known composition, namely TBBA (tetrabromobisphenol A). TBBA is at least known from each document **D1, D2, D4, and D5**. Hence the subject-matter of claim 12 **does not meet the requirements of Article 33(2) PCT**.
- 1.4 As regards **claim 22**: a method for preserving wood, comprising impregnating wood with a solution comprising TBBA as an active ingredient is known from **D5**. Hence the subject-matter of **claim 22 does not meet the requirements of Article 33(2) PCT**.
- 1.5 As regards **claim 24**: claim 24 is formulated in a product by process style. Such claims are only allowable if the product as such meets all requirements of **Article 33 PCT**. This is however not the case, because a wood product containing TBBA is known from **D5**. **Claim 24 is therefore not allowable**.

2. Article 33(3) PCT (Inventive Step)

- 2.1 The closest prior art for the subject-matter of claim 1 is seen in **D5**, because it discloses the use of tetrabromobisphenol A as an impregnating agent for wood. However, in **D5** the TBBA is used as a fire retarder. There is no hint given towards the use of TBBA as a fungicide. The fungicidal properties of TBBA are mentioned in **D1 and D4**, but not in context as wood preservatives. There is therefore no incentive to combine the teachings of **D5** with any of **D1 or D4**. An inventive step in the subject-matter of claim 1 is therefore acknowledged.
- 2.2 The dependent **claims 12-21, and 23 do not fulfill the requirements of Article 33 PCT** because their subject-matter is either known from **D1 or D2 or D4 or D5** or they

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merely represent a choice among obvious design possibilities from which a person skilled in the art would choose without use of inventive skill in order to arrive at the solution of the problem posed or they do not add any unexpected effect over what is known from the prior art.

3. Article 33(4) PCT (Industrial Applicability)

3.1 Industrial applicability is given, **claims 1, 2, and 4-24 meet the requirements of Article 33(4) PCT.**

4. Certain published documents (Rule 70.10 PCT)

Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO-A-03/009981	06.02.2003	04.07.2002	26.07.2001